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Notice of Allowability**Application No.**

10/674,523

Examiner

Asok K. Sarkar

Applicant(s)

KANZAWA ET AL.

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 10/01/2003.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 05 May 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/1/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. The Applicant's representative was contacted for correcting some minor language deficiencies in the abstract of the disclosure.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael E. Fogarty on November 10, 2004.

The application has been amended as follows:

In the abstract, line 1, the phrase " The present invention provides a ..." has been deleted, and - - A - - is inserted. In line 3, the phrase " ... comprising the steps of:" has been deleted and - - utilizes the steps of - - . In line 10, following the phrase " ... may further comprise" the phrase " the steps of:" has been deleted.

In claim 1, line 4, following the phrase " ... content of", the word "an" has been deleted and - - a - - has been inserted.

In claim 4, line 6, following the phrase " ... model for", the word "an" has been deleted and - - a - - has been inserted.

In claim 8, line 18, following the word "forming", the word "an" has been deleted and - - a - - has been inserted.

In claim 13, line 11, following the word "forming", the word "an" has been deleted and - - a - - has been inserted.

Allowable Subject Matter

3. Claims 1 – 16 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Claims 1 – 7 recite, inter alia, a method for measuring the carbon content of a SiGeC layer by a combination of thickness measurement by ellipsometry and infrared absorption spectrum of the layer. Although, Peterson, US 2004/0014250 teaches measuring composition of the SiGeC layer by ellipsometry, he fails to teach measuring the carbon concentration by combining ellipsometric measurements with the infrared absorption spectrum of the layer. Moreover, the art of record does not disclose or anticipate the above limitation in combination with other claim elements nor would it be obvious to modify the art of record so as to form a device including the above limitation.

Claims 8 – 16 recite, inter alia, a method for manufacturing a semiconductor device by obtaining the carbon content of a SiGeC layer by a combination of thickness measurement by ellipsometry and infrared absorption spectrum of the layer. Although, Peterson, US 2004/0014250 teaches measuring composition of the SiGeC layer by ellipsometry, he fails to teach measuring the carbon concentration by combining ellipsometric measurements with the infrared absorption spectrum of the layer. Moreover, the art of record does not disclose or anticipate the above limitation in combination with other claim elements nor would it be obvious to modify the art of record so as to form a device including the above limitation.

Conclusion

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kishii, US 6,518,572 teaches a method of measuring carbon concentration through infrared spectroscopy.

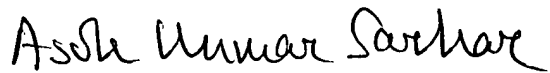
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asok K. Sarkar whose telephone number is 571 272 1970. The examiner can normally be reached on Monday - Friday (8 AM- 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571 272 1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Asok Kumar Sarkar". The signature is written in a cursive, flowing style.

Asok K. Sarkar
November 10, 2004

Patent Examiner